

Using Surveillance Cameras on Remote Fires: Safety and Cost Containment

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Abstract

On July 25, 2004, the Fire Intelligence Module (FIM) was dispatched to Winthrop, WA in support of the Freezeout Fire. The Freezeout Fire was classified as a “Limited Suppression Action”. Located less than a mile south of the Canadian border in the Pasayten Wilderness on the Okanogan-Wenatchee National Forest, the Freezeout Fire was in very steep terrain with limited access. In accordance with the Long Term Action Plan, the FIM was tasked with installing a “web cam” at an historic lookout in order to remotely monitor the Freezeout Fire. The FIM assessed the best option for deployment of a wireless network with a camera attachment, keeping in mind three things: Minimizing helicopter flight time (exposure), minimizing helicopter landings in the wilderness, and providing the least cost alternative. The FIM installed a camera and wireless network on five separate mountain peaks and at a terminal point at the local Internet Service Provider’s location. The final installation included a surveillance camera with a 23x zoom capability and a 280° panning capability (including a view north into Canada) positioned approximately one mile west of the Freezeout incident. To our knowledge, this is the first time that a wireless network has been set up and used exclusively to remotely monitor wildland fires. The implications for safety and cost containment are evident: With this type of system in place, managers may not need to fly a fire every day; personnel may not have to be inserted for limited action suppression fires; and multiple fires may be managed at once.

The Presenting Author

Casey Teske is the Fire Intelligence Module Coordinator/Image Analyst at the National Center for Landscape Fire Analysis on the University of Montana campus in Missoula, and spends much of her time trying to get the Module dispatched to Wildland Fire Use fires. When the season gets slow, she puts her remote sensing & GIS skills to work doing fire effects research. Since 1993, Casey has worked in many aspects of fire suppression, including IA & aircraft dispatch, engines, hotshots, helitak, and fire use modules. She also worked for a year at the Fire Science laboratory doing fire effects research. In between all of the “Fun Stuff”, she went to school and received a BS in Chemistry and an MS in Forest Resources, both from the University of Idaho.

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